

Amendments to the Specification

IN THE ABSTRACT OF THE DISCLOSURE

Attached hereto is a replacement Abstract with markings to show amendments.

IN THE WRITTEN DESCRIPTION

Please replace paragraph [0002] with the following amended paragraph:

[0002] Conventionally, colloidal solutions of tin and palladium and aqueous solutions of palladium chloride and other palladium compounds are used as catalysts in electroless plating. The problem with these catalysts is that because they use inorganic palladium compounds, when using organic solvents which have a better wettability than water and excellent applicability and workability and which can also dissolve other organic compounds such as resins, the solubility is poor and the palladium precipitates without providing a uniform solution. Palladium acetate, which ~~has~~is formed from a lower fatty acid, is soluble in methanol depending on the concentration, but the palladium rapidly precipitates.

DISCLOSURE OF THE INVENTION

Please replace paragraphs [0004] - [0006] with the following amended paragraphs:

[0004] The inventors arrived at the present invention upon discovering that a noble metal soap obtained from a palladium compound or other noble metal compound and a fatty acid is soluble and stable in organic solvents and maintains its catalytic effect when metal is deposited from an electroless plating liquid.

That is, the present invention relates to:

(1) A pretreating agent for electroless plating comprising a noble metal soap of naphthenic acid or a fatty acid having 5 to 25 carbon atoms;

(2) The pretreating agent for electroless plating according to (1) above, further comprising a silane coupling agent having a functional group with metal capturing ability in the molecule;

(3) The pretreating agent for electroless plating according to (2) above, wherein the silane coupling agent is a silane coupling agent obtained by reacting an azole compound or amine compound with an epoxy silane compound;

(4) The pretreating agent for electroless plating according to (2) or (3) above, wherein the functional group with metal capturing ability is an imidazole group;

(5) The pretreating agent for electroless plating according to any one of (1) through (4) above, wherein the noble metal soap is a palladium soap;

(6) A pretreating agent for electroless plating according to any one of (1) through (5) above, wherein the noble metal soap is palladium naphthenate, palladium neodecanoate or palladium octylate;

(7) An ink composition comprising the pretreating agent for electroless plating according to any one of (1) through (6) above;

(8) An electroless plating method wherein an object to be plated is pre-treated with the pretreating agent for electroless plating or ink composition according to any one of (1) through (7) above and then electroless plated;

(9) The electroless plating method according to (8) above wherein pre-treatment with an ink composition is drawing with an inkjet;

(10) A plated product obtained by performing the electroless plating method according to (8) or (9) above on the object.

BEST MODE FOR CARRYING OUT THE INVENTION

[0005] The noble metal soap used in the present invention can be obtained by a reaction of naphthenic acid or a fatty acid with a noble metal compound.

The fatty acid has preferably 5 to 25, or more preferably 8 to 16 carbon atoms. If the fatty acid has not more than 4 carbon atoms it will dissolve poorly and be unstable in organic solvents. ~~Not less than 26 carbon atoms~~ or more is impractical because there is a limit on how much can dissolve in the organic solvent, and more needs to be added because the noble metal content is lower.

Examples of the aforementioned fatty acid include dodecanoic acid, octadecanoic acid and other saturated fatty acids, oleic acid, linoleic acid and other unsaturated fatty acids, hydroxytetradecanoic acid, carboxydecanoic acid and other oxygenated fatty acids and mixtures of these.

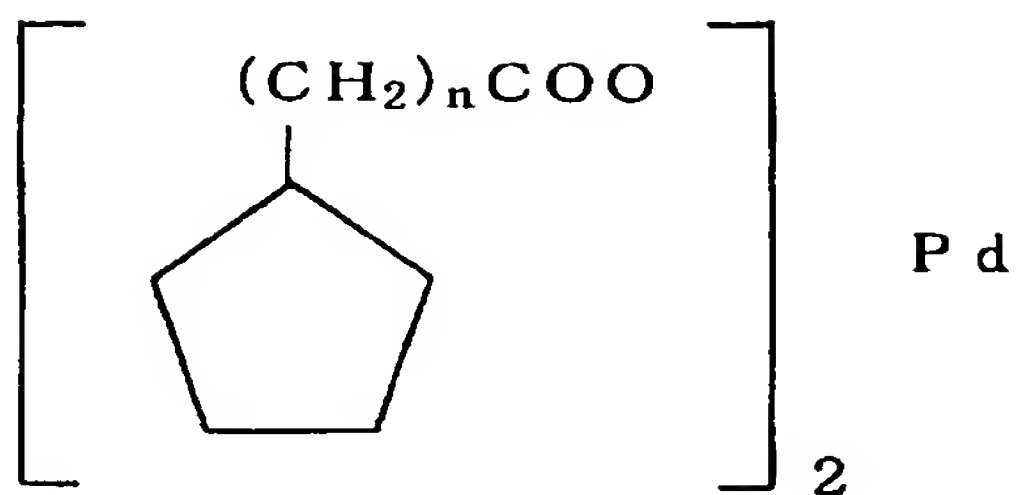
Desirable examples of the aforementioned fatty acid include ~~naphthenic acid~~, octylic acid, neodecanoic acid, pentadecanoic acid and the like.

[0006] Examples of the aforementioned noble metal compound include compounds which are capable of forming soaps with naphthenic acid or fatty acids and which are halides, hydroxides, sulfates, carbonates and other compounds of palladium, silver, platinum, gold and other metals that have a catalytic effect in depositing copper, nickel or the like from an electroless plating liquid onto the surface of an object to be plated, and a palladium compound is particular desirable.

The noble metal soap used in the present invention can be obtained by ordinary methods of preparing metal soaps, such as the direct method or double decomposition of the aforementioned naphthenic acid or fatty acid with the aforementioned noble metal compound.

Palladium naphthenate, which is desirable as the noble metal soap used in the present invention, is shown below.

[Chemical Formula 1]



Mixture of $n = 9-13$

structural formula of palladium naphthenate

Please replace paragraph [0014] with the following amended paragraph:

[0014] In the present invention it is vital that the pretreating agent contain a noble metal soap of naphthalene or a fatty acid, but it may also contain conventional tin chloride or other catalysts within the range of the intent of the present invention.